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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,107	12/13/2001	John F. McEntee	10004452-1	6455

7590 08/26/2004  
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EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/017,107	<b>Applicant(s)</b> MCENTEE ET AL.	
	<b>Examiner</b> Michael P Nghiem	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,8 and 23-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5,8,30,31,41 and 42 is/are allowed.
- 6) ☒ Claim(s) 23-25 and 32-40 is/are rejected.
- 7) ☒ Claim(s) 26-29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

The Amendment filed on June 29, 2004 has been acknowledged.

### ***Withdrawal of Allowability***

1. The indicated allowability of claims 23-25 and 32-40 is withdrawn in view of the newly discovered reference(s) to Faulkner et al. (US 2002/0138228) and Bruhn et al. (US 6,458,583). Rejections based on the newly cited reference(s) follow.

### ***Claim Objections***

2. Claims 23, 25, 32, 34, and 35 are objected to because of the following informalities:

- claim 23, "a fluid supply" (line 4) should be – a fluid supply vessel --.
- claim 25 lacks a transitional phrase.
- claim 32, "a fluid supply" (line 4) should be – a fluid supply vessel --.
- claim 32, the pressure gauge (line 2) is not connected to other elements.
- claim 34, "a fluid supply reservoir" (line 1) should be – a fluid supply vessel --.
- claim 35, "said supply vessel" (line 1) should be – said fluid supply vessel --.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-25 and 32-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner et al. (US 2002/0138228) in view of Bruhn et al. (US 6,458,583).

Regarding claims 23, 32-38, and 40, Faulkner et al. discloses a method of replenishing a pulse jet reservoir (Fig. 9) comprising:

- providing a printing system (Fig. 9) comprising a pulse jet printhead (54), a pressure gauge (11), a reservoir (68), and a fluid supply vessel (80), wherein said reservoir has an inlet line (inlet line to 68) and an outlet line (outlet line from 68), said inlet line capped by a valve (82) for connection to a fluid supply (80) and said outlet line in fluid communication with said printhead (Fig. 9), wherein said pressure gauge comprises a manometer (11), and wherein said fluid supply vessel is connected to said reservoir via a supply vessel line (supply line connected to 82) connected to said valve (Fig. 9);

- connecting said fluid supply vessel to said reservoir (Fig. 9);
- opening said valve (open valve 82), and

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- feeding print medium from said fluid supply vessel to said reservoir (Fig. 9), wherein said print medium is fed under pressure to said reservoir during use of said pulse jet nozzle (Fig. 9).

Regarding claim 39, Faulkner et al. discloses that gauge pressure is monitored (via 84) and pressure compensation is applied to maintain said pressure within a desired range (via 82, Fig. 9).

However, Faulkner et al. does not disclose that said print medium comprises a biopolymer or precursor thereof and a method of producing a biopolymer array.

Nevertheless, Bruhn et al. discloses a print medium comprising a biopolymer (Abstract, lines 1-2) for the purpose of preparing nucleic (biopolymer) arrays (Abstract, lines 7-10, column 2, lines 30-33).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Faulkner et al. with a print medium comprising a biopolymer as disclosed by Bruhn et al. for the purpose of preparing nucleic (biopolymer) arrays.

***Allowable Subject Matter***

4. Claims 26-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 1-5, 8, 30, 31, 41, and 42 are allowed.

***Reasons For Allowance***

6. The combination or method as claimed wherein a printing system comprising lines configured for individually connecting a printhead and manometer to a fluid source (claims 1, 30, 31, 41, 42) or contacting a biopolymeric array having a polymeric ligand that specifically binds to said analyte, with a sample suspected of comprising said analyte under conditions sufficient for binding of said analyte to a biopolymeric ligand on said array to occur (claim 26) is not disclosed, suggested, or made obvious by the prior art of record.

***Response to Arguments***

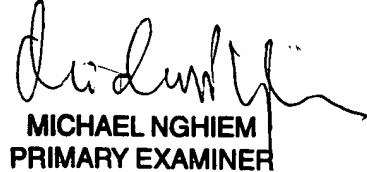
7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (571) 272-2269. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



**MICHAEL NGHIEM**  
**PRIMARY EXAMINER**

Michael Nghiem

August 24, 2004